IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: PETER STANFORTH

TITLE: AD-HOC PEER-TO-PEER MOBILE RADIO ACCESS...

SERIAL NUMBER: 09/897,790

FILING DATE: JUNE 29, 2001

GROUP: ART UNIT

EXAMINER:

To: The Commissioner of Patents and Trademarks
       Washington, D. C. 20231

PRELIMINARY AMENDMENT

S I R:

In advance of the first office action, please amend the above-identified application

as follows.

IN THE SPECIFICATION:

Page 13, last paragraph, substitute the following therefor:

-- There are a number of ways that ad-hoc terminals can communicate with each other in

this interworking and integration with the cellular network system. The terminals 10 can

communicate directly with each other (Fig. 3A), or they can communicate indirectly

through other terminals 12 and/or routers 14, and/or gateways 16 as described above.

When they communicate though gateways 16, such communications minimizes the

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number of hops, or nodes, and through which the terminals may communicate with the switched cellular networks via the gateways 16 and gateway controller 18. The interworking between an ad-hoc radio terminal 12 with the switched cellular network uses H.323 protocol for Voice-over-IP (VoIP) telephony within the packet network, and IS-634 between a gateway 16 and the MSC of the cellular switched network. However, VoIP may be also be achieved using other protocols, such as MEGACO or SIP, while the gateway-to-MSC connection may use protocols such as GSM-A. VoIP call-setup messages are control messages that use TCP/IP, and look like any other on-demand data packet. The actual voice-payload is UDP packets that are quality-of-service (QoS)-flagged for low latency transport to a gateway, which QoS is disclosed in above-mentioned commonly-owned application serial numbers: 09/815,164. In the preferred embodiment, H.323-specified G.729 vocoders is utilized. In this case, the voice-packets are translated to G.711 for transmission over the telephony links. Each ad-hoc radio terminal has the capability of encoding in the G.711 mode for reducing the translation activity in the gateway. --;

Page 14, first full paragraph, substitute the following therefor:

-- Terminals 12 routinely exchange routing table information in order for them to be able to route to each other and through each other to distant terminals, in a manner disclosed in above-mentioned U.S. Patent Application Serial No. 09/815,157. These exchanges typically occur every couple of seconds. The routing tables include information about the quality of the link between two terminals, the distance between the terminals and indications of the congestion levels of each terminal, as explained in above-

mentioned application. Gateways 16 identify themselves as a special class of terminal that can provide access to terminals and networks outside the current field of view. --.

MARKED UP VERSION SHOWING CHANGES

IN THE SPECIFICATION:

Page 13, last paragraph:

"There are a number of ways that ad-hoc terminals can communicate with each other in this interworking and integration with the cellular network system. The terminals 10 can communicate directly with each other (Fig. 3A), or they can communicate indirectly through other terminals 12 and/or routers 14, and/or gateways 16 as described above. When they communicate though gateways 16, such communications minimizes the number of hops, or nodes, and through which the terminals may communicate with the switched cellular networks via the gateways 16 and gateway controller 18. The interworking between an ad-hoc radio terminal 12 with the switched cellular network uses H.323 protocol for Voice-over-IP (VoIP) telephony within the packet network, and IS-634 between a gateway 16 and the MSC of the cellular switched network. However, VoIP may be also be achieved using other protocols, such as MEGACO or SIP, while the gateway-to-MSC connection may use protocols such as GSM-A. VoIP call-setup messages are control messages that use TCP/IP, and look like any other on-demand data packet. The actual voice-payload is UDP packets that are quality-of-service (QoS)-flagged for low latency transport to a gateway, which QoS is disclosed in above-mentioned commonly-owned application serial numbers: 09/815,164[, and (1710.013)].

In the preferred embodiment, H.323-specified G.729 vocoders is utilized. In this case, the voice-packets are translated to G.711 for transmission over the telephony links. Each ad-hoc radio terminal has the capability of encoding in the G.711 mode for reducing the translation activity in the gateway."

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REMARKS

The present preliminary amendment has been submitted in order correct minor errors in the specification.. No new matter has been added.

Respectfully submitted,

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